

Hope: A predictor of successful goal attainment

A Senior Honors Thesis

Presented in Partial Fulfillment of the Requirements for graduation *with research distinction* in  
Psychology in the undergraduate colleges of The Ohio State University

by

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June 2009

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### Abstract

Hope is a construct that is related to successful goal attainment, and includes pathways (routes to a goal) and agency (perceived capability of pathways utilization) thinking. High hope has been found to be positively correlated with better academic, athletic, and social success, and also better psychological health and quality of life. This study seeks to expand the literature by experimentally testing whether high hope people actually generate more pathways and higher agency than low hope people in a behavioral laboratory task. First, 65 participants were asked to complete a task in which they generated as many pathways as possible to complete a hypothetical goal and to rate the likelihood of use of each generated pathway. Then, they were asked to fill out a packet of questionnaires, one of which was the Trait Hope Scale. Results show that the high hope group did generate more pathways and had higher agency scores associated with the pathways; however, the results were only significant for one of the four goal scenarios. Results also show that the agency subscale on the Trait Hope Scale were predictive of higher agency ratings on the experimental task. This work is significant because it provides a framework to impact hopeful thinking for low hope individuals and improve existing treatments for people with psychological maladies (i.e. depression) by teaching them how to more effectively pursue their endeavors, and consequently improving their quality of life.

### Hope: A predictor of successful goal attainment

Hope is a goal-focused cognitive process that is conceptualized by three necessary and interactive components: goals, agency thinking, and pathways thinking (Snyder, Feldman, Shorey, & Rand, 2002). The basic theoretical components of Hope Theory were stumbled upon serendipitously by Snyder while he was conducting research on excuse-making. While conducting this research, he noticed that participants expressed a desire to link themselves to positive goals and outcomes, as opposed to merely distancing themselves from negative outcomes (Snyder, Cheavens, & Michael, 2005). Following up on this interesting observation, he conducted one-on-one interviews with people asking them to describe their thought processes for that day. He found that goal attainment repeatedly emerged as a common theme among the daily thought processes of the participants (Snyder et al., 2005). The pervasiveness of the goal-related thoughts serves as evidence that understanding such thoughts and the associated actions is an important area of study.

In hope theory, a goal is a hoped-for end toward which thought, planning, and effort are directed. Goals can come in a variety of shapes and sizes. For example, goals can be relatively small (e.g., putting gas in your car) or relatively large (e.g., becoming a physician). According to Snyder and colleagues (2005), there are two distinct categories of goals: approach goals, wishing to achieve positive outcomes, and avoidance goals, wishing to avoid negative outcomes. The authors posit that any type of intentional behavior sequence is motivated by a goal of some sort, either in the short-term or long-term. However, according to hope theory, before this behavior sequence can be initiated, two other types of goal-directed cognitions must be applied: agency and pathways thinking (Snyder et al., 2002).

Pathways thinking is a person's perceived capability of coming up with a number of

routes to achieve a specific outcome (Snyder, 2002). Thus, coming up with a list of pathways is similar to generating a list of A to B sequences toward goal achievement. It is reasoned that high, as compared to low, hope people are better equipped to come up with a main route to achieve a desired goal fairly quickly and with a sense of confidence that the route will be effective (Snyder, 2002). In addition, high hope people should be more effective at generating a long list of alternative routes in case their initial route becomes blocked. High hope people describe themselves as “flexible thinkers”, which would afford them the ability to easily come up with alternative plausible routes if their initial route became impeded (Snyder, 2002). Theoretically, low-hope people should not demonstrate this same kind of flexibility, and should become discouraged if their routes toward a goal become blocked. In fact, low hope persons report that generating these alternative goals is quite difficult (Snyder, 2002). The generation of pathways is an important step in the goal attainment process but remains insignificant without the proper motivation to apply these pathways.

Agency thinking is a person’s perceived ability to apply pathways toward a goal and is the motivational component that drives a person to continue on the track toward goal attainment (Snyder, 2002). Agency thinking becomes especially significant when a person is confronted with a goal blockage. Agency thinking is the driving force that pushes an individual to carry on in the goal pursuit by choosing an alternate pathway, and then by applying it.

Goals, pathways thinking, agency thinking, and emotions interact with and influence each other throughout the entire goal pursuit process. For example, choosing a goal with a high outcome value may inspire higher motivation (i.e. agency) which in turn may inspire the generation of more pathways and so on (Cheavens, Feldman, Gum, Michael, & Snyder, 2006). Also, if a person perceives that he or she is making progress toward a goal, this should result in

positive affect, which would loop back around and fuel the agency and pathways thinking processes (Snyder, 2005). This positive reinforcement loop between affect, pathways, and agency can continue throughout the entire process toward goal attainment. The inverse is also true; an unimportant goal could lead to few pathways thoughts and relatively little motivation to use them. Failure or set-backs toward a goal result in negative affect (Snyder, 2005). If while on the path to goal attainment a person encounters a blockage (a threat large enough to place hopeful thought at risk) then negative emotions should cycle back to effect the person's hopeful thinking (Snyder et al., 2005). However, according to theory, high hope people are likely to see impediments as challenges rather than threats, and be quick to bounce back from this initial set-back (Snyder et. al., 2005).

Hope can also occur on different levels. A general, trait measure of hope (i.e., The Hope Scale) measures perceptions of the one's ability to generate pathways and maintain agency in general. A situational measure of hope (i.e., The State Hope Scale) measures perceptions of pathways generation and agentic thought for a specific time period (Snyder et al., 2002). In concert with the reciprocal nature of hope, success (or failure) on a specific task can loop back and affect one's trait hope in general; however, it is theorized that by adulthood, an individual's level of hope is relatively stable and would withstand the impact of one or two relatively minor set-backs. Over the course of time, previous successes result in a boost of one's perceived ability to achieve goals, while past failures result in lower trait hope. This relationship between situational and trait hope illuminates the fact that hope is a learned process.

Aside from the obvious benefit of successful goal attainment, high hope is predictive of many desirable traits ranging from physical and mental health to athletic and academic performance. For example, researchers found that college-aged women with high hope were

more knowledgeable about cancer and also could produce hope-specific coping responses to cancer risk, detection, and coping at various stages than low hope women (Irving, Snyder, & Crowson, 1998). Superior athletic performance has also been shown to be related to hope. High-hope male and female collegiate athletes performed significantly better in athletic competitions than low-hope athletes, even after controlling for variance due to natural ability, as rated by coaches (Curry, Snyder, Cook, Ruby, & Rehm, 1997). Higher hope has also been related to higher overall grade-point averages in high school (Snyder et al., 1991) as well as college students (Curry et al., 1997). In a study focused on the role of hope and college academic success, hope was a significant predictor of college graduation rates after controlling for variance due to entrance exam scores (Snyder, Shorey, Cheavens, Pulvers, Adams, & Wiklund, 2002). In addition, higher hope is correlated with fewer depressive symptoms and lower levels of negative affectivity (Cheavens et al., 2006). Overall, high hope is positively correlated with a wide range of positive outcomes, such as the ones mentioned above as well as perceived self worth, scholastic competence, social competence, and creativity (Onwuegbuzie, 1999).

According to Snyder's theory (2005), hope is learned very early in life, beginning in infancy with a parental attachment style. A secure attachment with a caregiver gives a child support while also encouraging children to explore their world. As a child grows up he or she begins to view him or herself as a causal agent, capable of creating change in the world by setting and pursuing goals (Snyder et al., 2005). If hope is a learned trait, as opposed to an innate one, then it would logically follow that hope can be taught to people. This is exactly what Cheavens and colleagues (2006) showed in their study on the use of hope therapy in a community sample with disorders such as major depressive disorder, social phobia, and panic disorder. In this study, the authors found that during an eight session treatment focused on the

improvement of goal-pursuit skills, there was a significant improvement in the agency component of hope, life meaning, and self-esteem, as well as the reduction of psychopathological symptoms (Cheavens et al., 2006). Thus, participants in the hope group showed an increase in agentic thinking, compared to a wait-list control group. Pathways thinking was not impacted by the intervention. However, both initial levels of hope and change in hope scores predicted reductions in both depressive and anxiety symptoms. Therefore, there is some evidence that hope can be increased through therapeutic interventions and that such increases can be important in reduction of psychological distress.

The main objective of this study is to examine the relationship of hope and goal-pursuit behaviors in an experimental setting. The hypotheses of the study are as follows:

1. Hope will be related to the number of pathways generated in goal-related vignettes.
2. Hope will be related to agency ratings associated with generated pathways.
3. Trait pathways subscale scores on The Hope Scale will predict the number of pathways generated in the experimental task.
4. Trait agency subscale scores on The Hope Scale will predict agency ratings associated with generated pathways in the experimental task.

## Method

### *Design*

A quasi-experimental design was used to investigate the relationship between hope, the independent variable, and the generation of pathways, the dependent variable, in a hypothetical scenarios task. Hope was operationalized using the scores on the Trait Hope Scale (Synder et

al., 1991). The generation of pathways was operationalized as the number of options participants were able to generate in response to a prompt for ways to accomplish hypothetical goal scenarios. It was expected that high hope would be related to the production of a greater number of pathways in response to the scenarios and higher agency ratings associated with each pathway.

### *Participants*

Participants were all undergraduate students at The Ohio State University. Participants were recruited through the Research Experience Program for students enrolled in an introductory Psychology class. A total of 65 people, aged 18 to 23 years, completed the experiment, with a mean age of 19.18 ( $SD = 1.3$ ) years. In terms of gender, 30 of the participants were male and 35 were female. The majority of the participants identified as Caucasian (78.5%), followed by those who identified as either African American or Asian (7.7%, each), and American Indian or Latino (less than 2%, each). Participants were from relatively high SES groups with 35.4% of the participants' annual family income between \$65,000 and \$100,000, 27.7% were \$100,001 and up, 18.5% were between \$40,000 and \$65,000, 9.2% percent were between \$20,000 and \$40,000 , and 9.2% were under \$20,000. Fluency in English was required, as this was necessary for the pathways generation task. No other exclusion criteria were used. For a more concise view of demographic information, see Table 1.

### *Materials*

Hope was assessed using The Hope Scale (see Appendix A; Snyder et al., 2001) which contains 12 items; four items assess agency; four assess pathways thinking, and the other four are distractor items and are not used in the scoring of the scale. Items are rated on a scale of one



(definitely false) to 8 (definitely true); thus, scale scores can range from 8 to 64. Internal consistency ranges from .74- .84. For the Agency subscale, Cronbach's alphas ranged from .71 to .76. For the Pathways subscale Cronbach's alphas ranged from .63 to .80. The test-retest reliability of the Hope Scale is .85 over a 3-week interval ( $N = 130$ ; Anderson, 1988), and .76 and .82, respectively, over a 10-week interval in two samples ( $N = 205$ , Gibb, 1990;  $N = 133$ , Yoshinobu, 1989). These statistics attest to the temporal stability of the scale. Convergent validity for the Hope Scale (Snyder, 1991) has been demonstrated through associations with similar constructs in the predicted direction. For example, the Hope Scale and the Life Orientation Test (Scheier & Carver, 1987), a measure of dispositional optimism, are significantly correlated with one another ( $r = .60$ ; Gibb, 1990). Additionally, Gibb (1990) found that the Hope Scale is positively associated with desirability of control (using The Burger-Cooper Life Experiences Survey; Burger & Cooper, 1979). Also, Snyder (1991) found that the Hope Scale was positively related to problem-solving confidence as measured by the Problem Solving Inventory (Heppner & Peterson, 1982). Discriminant validity has been established using two scales that measure negative affectivity (i.e., the Taylor Manifest Anxiety Scale; Taylor, 1953 and the State-Trait Anxiety Inventory; Spielberger, Gorsuch, & Luchene, 1970). Both were inversely and significantly correlated with Hope Scale scores (Holleran & Snyder, 1990).

The pathways generation task consisted of four hypothetical scenarios for which the participants were asked to produce as many routes as possible to achieve the goal described in the scenario. Next to each pathway there was an agency rating on a 5-point Likert scale (1 being least likely, 5 being most likely) where the participants were instructed to circle how likely they would be to actually use the generated pathway. For a complete list of scenarios, see

## Appendix B.

The demographic data form used in our study asked participants basic information about themselves, such as their age, race, marital, and socio-economic status. To view the entire form, see Appendix C.

### *Procedure*

Trials were conducted in groups of one to two participants at a time. First, participants were given two copies of the consent form, one that they signed for study records and one that they kept for their own records. Next, the procedure of the experiment was read to participants by the experimenter, and they were given the option to continue with the experiment or stop participation. Participants were told that their participation was voluntary, and that they were permitted to leave at any time and still receive credit.

The study began with the completion of the questionnaires and the scenarios task. Instructions were provided for the scenarios task as well as for each questionnaire. Participants were told to ask the experimenter if they had any questions. The scenarios task consisted of four hypothetical scenarios in which goals were presented, such as applying for college or getting in shape for a special event (see Appendix A). The participants were instructed to list as many ways as possible to achieve each goal, even if they would not use those pathways in real life. Next to each pathway, participants were asked to rate the likelihood that they could/would utilize this pathway for the stated goal on a scale from 1-5 (1 being least likely, 5 being most likely). After the experiment each participant was thanked and given a debriefing sheet which further explained the purpose of the study, and also provided contact information for the principle investigator and student psychological services in case the experiment inadvertently caused any emotional distress to the participant.

## Results

The sample was divided into two groups using a median split, moderate hope (Hope Scale score below 50,  $n = 30$ ) and high hope (Hope Scale score 50 and above,  $n = 35$ ).

Hypothesis 1 predicted that hope would be related to the number of pathways generated in goal-related vignettes. The generated pathways were totaled per scenario and analyzed using independent samples  $t$ -tests. The difference between generated pathways in the high and moderate hope groups was statistically significant in Scenario 2, although not significant in the other three scenarios. All the results were, however, in the predicted direction (see Table 2). This finding implies that the data did not show significant differences in pathways generation between high hope people and moderate hope people.

Hypothesis 2 predicted that hope would be related to agency associated with generated pathways. The results of the associated agency ratings were averaged for each scenario and analyzed using independent samples  $t$ -tests. There was a significant difference in the average agency ratings associated with generated pathways in Scenario 2 between individuals with high ( $M = 4.24$ ) and moderate ( $M = 3.78$ ) levels of hope,  $t(62) = -3.32, p = .001$ . In the other scenarios, the results were in the predicted direction, but were not significant (see Table 3). These results indicate that people in the high hope group did not have significantly higher agency ratings for their generated pathways than people in the moderate hope group.

Hypothesis 3 stated that pathways subscale scores on The Hope Scale (Snyder et al., 2001) would be correlated with the number of pathways generated on the experimental task. The correlation between the generated pathways and pathways subscales scores was not significant,  $r(65) = .05, p = n. s.$

Hypothesis 4 stated that agency subscale scores on The Hope Scale (Snyder et al., 2001)

would be correlated with agency associated with generated pathways. The results were significant in Scenarios 2 and 4, and approached significance in Scenario 1 (see Table 4), which indicates an overall trend that agency scores on the Trait Hope Scale significantly predict higher agency ratings associated with pathways.

### Discussion

The results partially supported the hypotheses of the study. There was a trend (and a significant difference in Scenario 2) towards high hope individuals generating more pathways than moderate hope individuals. The pattern of results for the agency ratings associated with the generated pathways was similar to the pattern of results for the pathways generation. All scenarios were in the expected direction and there was a significant difference between high and moderate levels of hope in Scenario 2. Additionally, based on the pattern of correlations, it appears that the agency subscale scores were generally significantly related to agency ratings associated with the generated pathways. Pathways subscales scores were unrelated to the total number of pathways generated and there were no significant differences between high and moderate hope groups.

These findings are important because this is one of the first studies to test the hypothesized differences in pathways generation and agency ratings for higher and lower hope individuals. There is a well-established literature suggesting that hope is beneficial in several ways. Additionally, hope theory is clear as to the proposed mechanisms for these advantages, but few studies have examined these hypothesized mechanisms in a behavioral laboratory paradigm. The finding that agency subscale scores are related to agency ratings for the generated pathways is important because in a previous study of hope in a therapeutic context (Cheavens et al., 2006), results indicated that changes in agency were most predictive of

successful treatment response. The current study findings suggest that the agency subscale is an adequate measure of behaviorally demonstrated agency. This is significant because it reinforces the current literature on Hope Therapy, and provides more experimental support that higher levels of hope are related to stronger motivation to accomplish goals.

Although the majority of the results in this study were not significant, there were trends in the data that indicate that the hypotheses might be supported with a more powerful design. There were a few faults in the design of the study which may have masked the detection of significant relationships and differences between the groups. For example, the sample size may not have been adequate to detect a significant difference between the two groups. The original plan was to recruit 120 participants and only 65 participants were ultimately recruited into the study. Additionally, a delay in data collection resulted in a significant change to the design of the study. The original study was designed to utilize prescreening of participants using the Hope Scale and only invite the participants who scored in the top and bottom 25<sup>th</sup> percentile to participate in the study. However, due to a delay in the initiation of data collection the prescreening was eliminated and the sample was simply divided using a median split to comprise “low hope” and “high hope” groups for comparison. The obtained range of scores also posed a problem for satisfactory analyses of the research questions. The study was originally intended to compare groups of low and high hope participants. However, the distribution of collected scores did not encompass the full range of possible scores; the scores were skewed toward the high end of the hope spectrum. The full possible range of scores on the Hope Scale range from 8 to 64 and the scores of our actual sample ranged from 30 to 64. One possible explanation for the skewness of the sample is that participants were recruited from a pool of undergraduate college students, who probably have higher hope scores than the average sample

from the overall population. A future direction could be to recruit participants from the community, as well as from a college setting, to get a more representative range of hope scores.

Another setback of the design was that the pathways generation task was not counterbalanced. It may be that the results obtained for each scenario were due in part to the order in which they were presented, and not necessarily the participants' skill at producing pathways for that particular scenario. It is possible that as participants began generating pathways, they became better as they progressed in the task. The results of Scenario 2 were significant for hypotheses except the Hypothesis 3. In Scenario 2, participants were instructed to list as many ways they could think of to help a friend that has been feeling down. It is unclear why Scenario 2 consistently produced significant results when the other scenarios failed to do so. One possible explanation is that Scenario 2 is the only scenario that dealt with social issues and it has been found in past research that high hope people have more fully developed social networks (Snyder, 1994). Perhaps the Significance of scenario 2 highlights this finding. This is a note-worthy observation that would allow for an interesting research topic in the future. Scenario 3 seemed to be anomalous with the other scenarios, consistently producing the least significant data for all the hypotheses. This finding may be due to chance, or it may be due to the nature of the scenario. The hypothetical situation in Scenario 3 involved improving one's GPA. Perhaps because college students were sampled, all the participants were capable of excelling in an academic arena. In order to avoid this confound, this scenario could be eliminated from the pool of scenarios if this study were to be replicated. In the future, the presentation of the scenarios should be counterbalanced and possibly one or two of the scenarios should be eliminated to prevent possible practice or fatigue effects. Scenario 4 was interesting because it was arguably the most ecologically valid vignette. Scenario 4 asked

participants to think of a goal they would personally like to accomplish and list all the ways they could think of to do so. This is significant because it allows participants pick their own goal, instead of imposing a goal on them that may or may not be important. There was an almost significant difference between high and moderate groups in the production of pathways, but the agency ratings associated with the pathways were nearly equal for the two groups. This shows that high hope people were generating more pathways than moderate hope people, but were not more motivated to use those pathways when the goal was their own.

We hope to improve the design of this study and replicate it in the future. I believe this work is significant because Hope Theory provides a very bright future for possible therapy treatments for people with psychological disorders (i.e., depression) and potentially the general population, as the benefits of hope are numerous. Ways in which the average person can benefit from a hope intervention are being more equipped to attain goals (Snyder et al., 1991), achieving better academic and athletics success (Curry et al., 1997), having richer social circles (Snyder, 1994), being more knowledgeable about physical well being (Irving et al., 1998), and having better overall quality of life (Cheavens et al., 2006).

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Table 1

*Demographic Information*

	N	Percentage
Gender:		
Male	30	46.2
Female	35	53.8
Marital status:		
In a relationship	15	23.1
Never married	49	75.4
Missing data	1	1.5
Ethnicity:		
Caucasian	51	78.5
African American	5	7.7
American Indian	1	1.5
Asian	5	7.7
Other	2	3.1
Year in school:		
Freshman	45	69.2
Sophomore	12	18.5
Junior	5	7.7
Senior	3	4.6
Income:		
\$0-10,000	3	4.6
\$10,001- 20,000	3	4.6
\$20,001-40,000	6	9.2
\$40,001- 65,000	12	18.5
\$65,001- 100,000	23	35.4
\$100,000 +	18	27.7

*Age of participants*

	Average	Range	Standard deviation
Age in years	19.18	18-23	1.3

Table 2

*Pathways generation per scenario for high and moderate hope individuals*

	High hope group	Moderate hope group
	mean	mean
	(SD)	(SD)
Scenario 1	7.14 (2.84)	6.33 (2.70)
Scenario 2*	7.00 (2.25)	5.90 (2.25)
Scenario 3	6.80 (2.94)	6.40 (2.90)
Scenario 4	7.37 (3.56)	6.37 (2.55)

\* $p < .05$ .

Table 3

*Agency ratings associated with pathways for high and moderate hope individuals*

	High hope group	Moderate hope group
	mean	mean
	(SD)	(SD)
Scenario 1	3.71 (.61)	3.46 (.69)
Scenario 2*	4.24 (.52)	3.78 (.58)
Scenario 3	4.06 (.62)	3.94 (.79)
Scenario 4	4.34 (.57)	4.24 (.67)

\* $p < .05$ .

Table 4

*The correlation between agency items on the Hope Scale and agency ratings associated with pathways on the pathways generation task*

	Correlation and significance
Scenario 1	.24**
Scenario 2	.33*
Scenario 3	.16
Scenario 4	.30*
* $p < .05$ ; ** $p < .10$ .	

## Appendix A

**The Goal Scale**

**Directions:** Read each item carefully. Using the scale shown below, please select the number that best describes YOU and write that number in the blank provided.

- 1= *Definitely False*
- 2= *Mostly False*
- 3= *Somewhat False*
- 4= *Slightly False*
- 5= *Slightly True*
- 6= *Somewhat True*
- 7= *Mostly True*
- 8= *Definitely True*

- \_\_\_\_ 1. I can think of many ways to get out of a jam.
- \_\_\_\_ 2. I energetically pursue my goals.
- \_\_\_\_ 3. I feel tired most of the time.
- \_\_\_\_ 4. There are lots of ways around any problem.
- \_\_\_\_ 5. I am easily downed in an argument.
- \_\_\_\_ 6. I can think of many ways in life to get the things that are most important to me.
- \_\_\_\_ 7. I worry about my health.
- \_\_\_\_ 8. Even when others get discouraged, I know I can find a way to solve the problem.
- \_\_\_\_ 9. My past experiences have prepared me well for my future.
- \_\_\_\_ 10. I've been pretty successful in life.
- \_\_\_\_ 11. I usually find myself worrying about something.
- \_\_\_\_ 12. I meet the goals I set for myself.

## Appendix B

### Scenarios

**Directions:** For each of the following scenarios please list **ALL** the possible ways you can think of to accomplish each hypothetical goal. It is important to list all of the ways you can think of to reach each goal, even if you would not consider using these ways in your real life. Beside each goal that you come up with, please rate on a scale of 1-5, 1 being the *least* likely and 5 being the *most* likely, how inclined you would actually be to use each of these pathways. Please feel free to write on the back of the sheet if you need more space.

**Example:** You went to take out the trash and accidentally left the door open. Unfortunately, your dog spotted the open door and ran away. List all the things you could do to get your dog back.

- |   |   |          |          |          |          |
|---|---|----------|----------|----------|----------|
| 1. Call the police station and ask if they found any dogs.        | 1 | <b>2</b> | 3        | 4        | 5        |
| 2. Drive around town in my car to see if I can find my dog.       | 1 | 2        | 3        | <b>4</b> | 5        |
| 3. Go door to door and ask the neighbors if they have seen him.   | 1 | 2        | 3        | 4        | <b>5</b> |
| 4. Call friends and family and ask them to help look for the dog. | 1 | <b>2</b> | 3        | 4        | 5        |
| 5. Call animal control to see if they have found any dogs.        | 1 | 2        | <b>3</b> | 4        | 5        |
| 6. Leave his favorite treat on the back porch.                    | 1 | <b>2</b> | 3        | 4        | 5        |
| 7. Put up flyers around town asking if anyone has seen him.       | 1 | 2        | 3        | 4        | <b>5</b> |

*Please feel free to write on the back of the sheet if you need more space.*

1.) You have a special event coming up in 6 weeks and you want to look your best. List all the ways you can think of to get in shape for the special day.

_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5

*Please feel free to write on the back of the sheet if you need more space.*

2.) Last week your friend confides in you that she has lost interest in school, her friends, and extracurricular activities. She also admits that she has been feeling really down lately. List all of the ways you can think of to help your friend.

_____	1 2 3 4 5
_____	1 2 3 4 5



3.) Ultimately, your goal is to get into graduate school after college. You have already arranged for a summer internship, and you also think it would be a good idea to improve your grade point average. List all of the possible ways you can of to raise your GPA.

[illegible]

	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5

*Please feel free to write on the back of the sheet if you need more space.*

4.) Think of a personal goal you wish to accomplish in your life. List all the possible ways you can achieve this goal.

_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5

## Appendix C

### DEMOGRAPHIC DATA FORM

Date: \_\_\_\_\_

**1. Sex:**

Male \_\_\_\_\_ Female \_\_\_\_\_

**2. Age:**

\_\_\_\_\_ years

**3. Current marital status:** *(check all that apply)*

- ☐ married with spouse
- ☐ living with partner
- ☐ separated
- ☐ divorced
- ☐ widowed
- ☐ in an intimate relationship but not living together
- ☐ never married

**4. Year in school:**

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior

**5. Ethnicity:**

- ☐ Caucasian
- ☐ African American
- ☐ American Indian
- ☐ Asian
- ☐ Hispanic-American
- ☐ Other

**6. Estimated Family Income:**

- ☐ 0 - \$10,000
- ☐ \$10,001 - \$20,000
- ☐ \$20,001 - \$40,000
- ☐ \$40,001 - \$65,000
- ☐ \$65,001 - \$100,000
- ☐ more than \$100,000